

What is Claimed is:

Sub B1 1. A grit blasting assembly for use with a grit blasting machine, said grit blasting assembly comprising:

5 a movable bracket having means to removably secure a nozzle assembly therein, and to repeatably position said nozzle therein in a substantially identical manner, said movable bracket being slidably moveable within a range of desired distances from a workpiece; and

10 means for repeatedly and precisely positioning said nozzle substantially at a desired distance from said workpiece.

2. The grit blasting assembly according to claim 1, wherein said means for removably securing said nozzle assembly, and for repeatably positioning said nozzle therein in a substantially identical manner, include:

15 a camming surface on said nozzle assembly;

a shoulder on said nozzle assembly; and

a spring-biased pin within said movable bracket, said spring-biased pin being dimensioned and configured to push against said camming surface, and to cause said shoulder to abut said movable bracket.

20 3. The grit blasting assembly according to claim 2, further comprising corresponding alignment guide surfaces on said nozzle assembly and said movable bracket.

4. The grit blasting assembly according to claim 1, further comprising corresponding alignment guide surfaces on said nozzle assembly and said movable bracket.

25 5. The grit blasting assembly according to claim 1, wherein said means for removably securing said nozzle assembly, and for repeatably positioning said nozzle therein in a substantially identical manner, include a proximity sensor, and a corresponding proximity sensor target.

30 6. The grit blasting assembly according to claim 5, wherein said proximity sensor is an inductive proximity sensor.

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7. The grit blasting assembly according to claim 5:  
further comprising a fixed bracket; and  
wherein one of said proximity sensor and said proximity sensor target  
is removably secured to said movable bracket, and the other of said proximity  
5 sensor and said proximity sensor target is removably secured to said fixed bracket.
8. A grit blasting assembly for use with a grit blasting machine, said grit  
blasting assembly comprising:  
a proximity sensor;  
a proximity sensor target;  
10 a movable bracket comprising:  
a grit blasting machine engaging portion dimensioned and  
configured for slidable mounting on said grit blasting machine; and  
a first arm dimensioned and configured to removably secure a  
grit blasting nozzle assembly, and to repeatably and precisely position said nozzle in  
15 substantially the same desired position.
9. The grit blasting assembly according to claim 8, further comprising:  
a camming surface on said nozzle assembly;  
a shoulder on said nozzle assembly; and  
a spring-biased pin within said movable bracket, said spring-biased  
20 pin being dimensioned and configured to push against said camming surface, and to  
cause said shoulder to abut said movable bracket.
10. The grit blasting assembly according to claim 9, further comprising  
corresponding alignment guide surfaces on said nozzle assembly and said movable  
bracket.
- 25 11. The grit blasting assembly according to claim 8, further comprising:  
a second arm having means for removably securing a device selected  
from the group consisting of said proximity sensor and said proximity sensor target;  
and  
a fixed bracket, comprising:  
30 a grit blasting machine engaging portion; and

means for removably securing a device selected from the group consisting of said proximity sensor and said proximity sensor target.

12. The grit blasting assembly according to claim 11, further comprising corresponding alignment guide surfaces on said nozzle assembly and said movable  
5 bracket.

13. The grit blasting assembly according to claim 11, wherein said proximity sensor is an inductive proximity sensor.

14. A method of grit blasting, comprising:  
providing a movable bracket comprising:  
10 a grit blasting machine engaging portion dimensioned and configured for slidable mounting on a grit blasting machine; and  
a first arm dimensioned and configured to removably secure a grit blasting nozzle assembly, and to repeatably and precisely position said nozzle in substantially the same desired position; and  
15 moving said movable bracket until a desired distance between said nozzle and a workpiece has been achieved.

15. The method according to claim 14, further comprising:  
providing a second arm having means for removably securing a proximity sensor on said movable bracket;  
20 providing a fixed bracket, comprising:  
a grit blasting machine engaging portion; and  
means for removably securing a proximity sensor target;  
providing a proximity sensor dimensioned and configured to provide an indicia of distance between said proximity sensor and said proximity sensor  
25 target;  
securing said grit blasting nozzle assembly within said first arm;  
securing said proximity sensor within said second arm; and  
moving said movable bracket until said proximity sensor indicates that a desired distance between said nozzle and a workpiece has been achieved.

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